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Core stabilization: Key in chronic low back pain

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Objectives: Existing literature lacks adequate studies about core stabilization in low back pain for parameters of range of motion, disability and pain. Moreover this is most ignored treatment aspect in Indian physiotherapy clinics. Our study decides the fate of core stabilization in chronic low back pain and helps to design a more efficient and refined treatment approach for future.

Subjects: 120 subjects (males) ranging 20-40 years equally divided in two groups were included in study. Group-A subjects were treated with hot packs for 20 minutes followed by first grade core stabilization and Group-B subjects were given no treatment.

Methods: Measurements are taken on day 1 and after 6 weeks of treatment control study. Outcomes are assessed on basis of Oswestry Disability Index (ODI), Visual Analogy Scale (VAS) and Lumbar Range of Motion (ROM). Oswestry Disability Index (ODI) is measured as percentage of disability decided by questionnaire. Visual Analogy Scale (VAS) is level of pain calculated by 10 cm line and Lumbar Range of Motion is measured using inch tape method.

Results: Appropriate statistical test are applied using SPSS 12.0.1 software to signify the findings. All three groups show improvement on each parameter studied, yet their level of improvement varies much between experimental & control group. Group-A i.e., core stabilization group shows maximum improvement for all outcome measures of pain, disability and lumbar range of motion. On contrary Group-B shows minimum improvement in all measured parameters.

Conclusion: This study suggests that hot packs followed by core stabilization exercise are most effective in improvement of pain, disability and lumbar range of motion out of all studied treatment parameters. Thus core stabilization should be used as a cardinal approach for an effective treatment of chronic low back pain.

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